

Unexploded Ordnance Safety on Ranges

a

Draft DoD Instruction

Presented by

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at the

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Introduction

With the exception of wartime, range operations represent the greatest source of Unexploded Ordnance (UXO) hazard to the public and the DoD workforce. Explosive ordnance is unique because it is specifically designed to be deadly and destructive. Because of this characteristic, the DoD has a unique responsibility to protect its personnel and the public from the potential harmful effects of UXO. The DoD is issuing an Instruction titled Unexploded Ordnance Safety on Ranges (copy attached) to fulfill that responsibility. The Department of Defense Explosives Safety Board (DDESB) is promulgating this Instruction under Title 10 of the United States Code 172 - the legal authority for the DDESB. This Instruction applies to all ranges used by the Military Departments, including inactive ranges, and is applicable to the Office of the Secretary of Defense (OSD), the Military Departments, the Unified Combatant Commands, and the Defense Agencies.

Background

This Instruction is being developed as a parallel and complimentary effort to the Range Rule (a DoD sponsored rule under Title 10 Section 172 of the United States Code) which addresses closed and transferring ranges. The DDESB was tasked to draft the Instruction by the Environmental, Safety and Occupational Health Policy Board (ESOHBPB), chaired by Mr. Gary Vest, Principal Assistant Deputy Under Secretary of Defense (Environmental Security), in November 1995.

Much of this policy is already being implemented by the Services and their policies were used in developing this Instruction. Additionally, the DDESB Chairman and members of the Secretariat have shown the draft to range management personnel during Explosives Safety Surveys and discovered no conflicting issues.

UXO Defined

Based on a number of comments and legitimate concerns regarding the issue of residue and constituents from explosive operations, a further clarification is necessary to ensure everyone understands the definition of UXO and the scope of this Instruction. The best way to do this is to restate the Joint Service definition of UXO (the same definition used in the Range Rule) and then to emphasize what UXO is not, and why. The accepted definition of UXO is: **Explosive ordnance which has been primed, fuzed, armed, or otherwise prepared for action and which has been fired, dropped, launched, projected or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material and remains unexploded either by malfunction or design or for any other cause.** Therefore, UXO is not explosive ordnance which is in a DEMIL account or which would be treated by a licensed disposal facility, whether that be located on a range or elsewhere. UXO on a range is there, not as hazardous waste, but as a consequence of its intended use.

UXO is not a residue or a constituent associated with explosive ordnance. When such residues or constituents are present and a hazard exists to human health or the environment, other laws and regulations will apply such as the DoD Environmental Restoration Program.

Policy

The cardinal rule of explosives safety is to limit exposure to the minimum number of people for the minimum amount of time to the minimum amount of explosives. This Instruction is based on this cardinal rule consistent with the mission requirements associated with our range operations. Therefore, it is DoD policy to limit authorized access to ranges to the minimum number of people necessary to accomplish the mission and restrict unauthorized access, using signs and guard patrols, or other means, as determined by the responsible commander.

This same policy applies to range clearance operations. We do not clear ranges except where necessary for the safe, effective operation of the range.

Since public support is vital to our overall mission, we require a public outreach program. This program is designed to alert the public to the hazards associated with explosive operations on ranges and to gain rapport with the neighboring communities.

Record keeping is an essential requirement for responsible range operations. Should we ever decide to use the range for non-explosive operations or turn the range over to the public or private sector, some level of clearance is usually required. The first step in determining the extent of UXO saturation is the historical data associated with the range operations. The Instruction covers the minimum requirements for keeping records.

Improved Conventional Munitions (ICM) and submunitions are among the most dangerous items of UXO and require special restrictions. It is DoD policy to use these munitions on test ranges only, except in those circumstances where their use elsewhere is absolutely essential to mission readiness.

Since range operations represent the deliberate detonation of explosive ordnance, greater safety precautions are taken than required for protection against an accidental detonation. Precautions must be taken in all cases to protect the public and DoD personnel during explosive operations. This means if a given operation will present a hazard, then either a different range must be used or other measures taken to afford protection. If UXO is discovered off the range, a rapid response by Explosive Ordnance Disposal (EOD) personnel is essential to protect the public and foster community support.

The Instruction as originally written covered only UXO explosives safety as provided for in the DDESB's legal authority under Title 10 of the US Code as mentioned above. It did not attempt to address other environmental concerns associated with range operations. However, based on a number of questions concerning hazardous residue and

constituents as a result of explosive operations and concerning hazardous substances that might be on a range, paragraph 10 under Policy was inserted. This paragraph covers the Department's responsibility to protect the public and the environment from hazardous residue and/or constituents from explosive operations and hazardous substances that may migrate off of a range. There is still some debate over the final scope of the Instruction and it may expand to cover other areas. But for now, with the exception of paragraph 10 under Policy, the Instruction represents the explosives safety standards applicable to UXO on ranges within the authority of the DDESB.

UXO Safety vs Environmental Concerns

It is important to remember that UXO safety is the primary safety concern on firing ranges and extreme caution must be taken when attempting to remediate an environmental problem or perform other types of environmental activities (or any other work) on a range. The occupational risk to those performing the work must be weighed against the benefits gained from the work. Where there is a conflict, explosives safety will normally take precedence. This principle is the basis for our policy to not clear ranges unless necessary for the safe operation of the range to support readiness requirements. We believe this policy is more protective of human health than if we were to require ranges to be cleared periodically for the sake of limiting a future cleanup operation should another use be determined. Where an environmental condition on a range threatens imminent and substantial harm to human health or the environment off the range, that condition must be addressed, but addressed in a manner consistent with the protection of those performing the work.

Responsibilities

The Under Secretary of Defense (Acquisition & Technology), or designee working through the DDESB has principal staff responsibility for UXO safety policy within OSD. The DDESB monitors compliance during its explosives safety survey program.

The Military Departments and Directors of the Defense Agencies will ensure compliance with this Instruction. Commanders of the Unified Combatant Commands will ensure compliance at joint use ranges within their areas of responsibility. This Instruction represents the minimum standards applicable to UXO safety on ranges and the DoD components have the latitude to determine how to implement the Instruction within their commands and facilities.

Information Requirements

Recordkeeping and mishap reporting must be compatible with the Defense Explosives Safety Management System (DESMS) which is compatible with the Defense Environmental Security Corporate Information Management (DESCIM) system. The Military Departments and the Defense Agencies along OSD must ensure that all data

system initiatives associated with UXO operations on ranges are compatible with these systems.

Status

With the exception of the controversy over paragraph 10 under Policy (how to address hazardous residue and constituents), the Instruction has been staffed and coordinated throughout the Department. The Instruction, essentially as written now, will be briefed to the next ESOHPB. The Policy Board will then decide whether or not the residue issue is adequately covered or whether it needs to be covered at all. Once that is done, the Instruction will be modified as necessary and sent out for final staffing and coordination. The goal of the department is to publish the Instruction as soon as possible.